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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/938,303

08/24/2001

Keishin Nagaoka

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02/26/2003

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EXAMINER

BELL, PAUL A

ART UNIT

PAPER NUMBER

2675

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,303

Applicant(s)

NAGAOKA ET AL.

Examiner

PAUL A BELL

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2001 and 12 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-72 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08/188,772.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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EX PARTE QUAYLE ACTION

1. This application is in condition for allowance except for the following formal matters:

(A). This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

(B). An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The CROSS REFERENCE TO RELATED APPLICATION section is missing.

Appropriate corrections are required.

2. A possible way to correct problem A and B is to use parts of the actual printed patent 5,943,032 the entire cover sheet (which has the abstract on it) and columns 1-14 please block out the claim section in column 14 lines 27-67 because you previously submitted a separate claim section which is ok. This is the most common way people file the specification part in a reissue because there are no changes to the printed patent specification being made.

3. Also note if the patent term of 5,943,032 expires due to nonpayment of maintenance fees, no reissue can be issued. Maintenance fees are due at 3.5 years, 7.5 years and 11.5 years after the patent date which in this case is 8/24/1999. Therefore it appears a maintenance fee is due on 2/24/2003.

Allowable Subject Matter

4. Claims 1-72 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter:

The invention as claimed in applicant's independent claims 1, 3, 18, 27, 28, 46, 48, 63, and 72 when considered as a whole, the exact arrangement of parts and/or the inter connections and functions, is not taught nor suggested by the prior art made of record.

With regard to independent claim 1, the prior art of record does not teach or fairly suggest the claim feature, "calculating numbers of sustain emissions of said plurality of subframes so as to make a ratio of brightnesses of said plurality of subframes substantially correspond with a ratio of the specific weight values of said plurality of subframes, wherein a

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ratio of numbers of sustain emissions of said plurality of subframes does not equal the ratio of the specific weight values of said plurality of subframes ", in combination with all the other limitations of the claim as illustrated in applicants figures 8-10.

The closest prior art of record Shinida (5,541,618) does not teach the above feature it instead teaches the method illustrated by applicant in his prior art figures 6 and 7 where it was assumed that the brightness was proportional to the number of sustain emissions for example the "IDEAL VALUE" curve so thereby the number of sustain emissions was based on a linear or geometrical mathematical relationship. The applicant determines by actual measurements how many sustain emissions are needed for each brightness level and thereby establishes a linear relationship between graylevel and actual brightness. The remaining independent claims 3, 18, 27, 28, 46, 48, 63, and 72 as illustrated below have variations of this allowable feature.

With regard to independent claim 3, the prior art of record does not teach or fairly suggest the claim feature, "numbers of sustain emissions of said plurality of subframes are calculated so as to make a ratio of brightnesses of said plurality of subframes substantially correspond with a ratio of the specific weight values of said plurality of subframes, wherein a ratio of numbers of sustain emissions of said plurality of subframes does not equal to the ratio of the specific weight values of said plurality of subframes" , in combination with all the other limitations of the claim as illustrated in applicants figures 8-10.

With regard to independent claim 18, the prior art of record does not teach or fairly suggest the claim feature; "wherein numbers of sustain emissions of each gray level are calculated so as to make a ratio of brightnesses of each gray level substantially correspond with a ratio of specific weight values of each gray level and ratio of numbers of sustain emissions of each gray level does not equal the ratio of the specific weight values of each gray level" , in combination with all the other limitations of the claim as illustrated in applicants figures 8-10.

With regard to independent claim 27, the prior art of record does not teach or fairly suggest the claim feature, "wherein numbers of sustain emissions of each gray level are calculated so as to make a ratio of brightnesses of each gray level substantially correspond with a ratio of specific weight values of each gray level, and a ratio of numbers of sustain emissions of each gray level does not equal the ratio of the specific weight values of each gray level ", in combination with all the other limitations of the claim as illustrated in applicants figures 8-10.

With regard to independent claim 28, the prior art of record does not teach or fairly suggest the claim feature, "setting a number of sustain emissions individually for and corresponding to the predetermined brightness of each individual subframe, different subframes bearing a non-linear relationship to the different predetermined brightnesses of the respective,

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different subframes ” , in combination with all the other limitations of the claim as illustrated in applicants figures 8-10.

With regard to independent claim 37, the prior art of record does not teach or fairly suggest the claim feature, “set therein a number of sustain emissions individually for, and corresponding to, the predetermined brightness of each individual subframe, different subframes bearing a non-linear relationship to the different predetermined brightnesses of the respective, different subframes” , in combination with all the other limitations of the claim as illustrated in applicants figures 8-10.

With regard to independent claim 46, the prior art of record does not teach or fairly suggest the claim feature, “calculating numbers of sustain emissions of said plurality of subframes so as to make a ratio of brightnesses of said plurality of subframes substantially correspond with a ratio of the specific weight values of said plurality of subframes, wherein a ratio of numbers of sustain emissions of said plurality of subframes does not equal the ratio of the specific weight values of said plurality of subframes ” , in combination with all the other limitations of the claim as illustrated in applicants figures 8-10.

With regard to independent claim 48, the prior art of record does not teach or fairly suggest the claim feature, “numbers of sustain emissions of said plurality of subframes are calculated so as to make a ratio of brightnesses of said plurality of subframes substantially correspond with a ratio of the specific weight values of said plurality of subframes, wherein a ratio of numbers of sustain emissions of said plurality of subframes does not equal the ratio of the specific weight values of said plurality of subframes ” , in combination with all the other limitations of the claim as illustrated in applicants figures 8-10.

With regard to independent claim 63, the prior art of record does not teach or fairly suggest the claim feature, “wherein numbers of sustain emissions of each gray level are calculated so as to make a ratio of brightnesses of each gray level substantially correspond with a ratio of specific weight values of each gray level and a ratio of numbers of sustain emissions of each gray level does not equal the ratio of the specific weight values of each gray level” , in combination with all the other limitations of the claim as illustrated in applicants figures 8-10.

With regard to independent claim 72, the prior art of record does not teach or fairly suggest the claim feature, “ wherein numbers of sustain emissions of each gray level are calculated so as to make a ratio of brightnesses of each gray level substantially correspond with a ratio of specific weight values of each gray level, and a ratio of numbers of sustain emissions of each gray level does not equal the ratio of specific weight values of each gray level ” in combination with all the other limitations of the claim as illustrated in applicants figures 8-10.

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Conclusion

6. Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

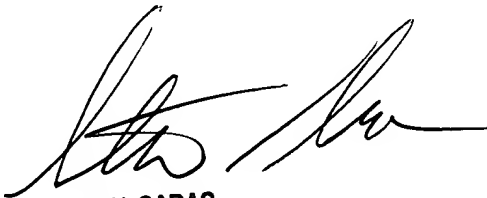
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Bell whose telephone number is (703) 306-3019. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras, can be reached at (703) 305-9720.

Any response to this action should be mailed to: Commissioner of Patents and Trademarks
Washington, D.C. 20231
or faxed to: (703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Paul Bell
Paul Bell

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30 January 2003


STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600